

REMARKS

Review and reconsideration of the Office Action of June 12, 2003 is respectfully requested in view of the above amendments and the following remarks.

Support for the amendment of claim 13 can be found in paragraph 8 of the specification.

Paragraphs 1-2 (Anticipation)

Claims 13-22 are rejected under 35 U.S.C. 102 as being unpatentable over US Patent No. 5,058,525 (Riling).

The Examiner's position appears to be that Riling teaches the same **elements** as the present apparatus claim, and that Applicants cannot argue that the elements are *used* differently, if the present claims recite the *same structures* as Riling, since the claims are directed to these elements rather than to the method of use.

Applicants respectfully disagree with the Examiner.

Admittedly, as pointed out by the Examiner, Riling teaches a supply meter with

- a consumed-amount display-device, and
- a verification code display device that is mechanically linked with the drive means for the consumed-amount display-device.

The coding means according to Riling are fixed to the gear wheels of the consumed-amount display-device and allow for a verification whether the current positions of the indicia correspond with the gear-wheels.

U.S. Application No.: 10/088,626
AMENDMENT B

Attorney Docket: 3960.010

However, Riling does not describe a **freely selectable** translation relationship between the drive means and the verification code display device. This relationship is **fixed** at 1:1 in Riling. This is a structural difference. The present claims thus contain a structural limitation not found in Riling and are thus not anticipated by Riling.

Applicants consider that the wording of the main claim may not have sufficiently communicated a significant feature - the translation relationship is not freely selectable with the assembled device. The translation relationship depends upon the construction design of the gear connection means (see, e.g., paragraphs 5 and 8 of the present description), and is determined prior to the assembly of the supply meter. Therefore, Applicants see how the Examiner might have read the claim such that the feature of a freely selectable translation relationship between the drive and means and the verification code display device is not a structural limitation of the device.

To clarify this matter, Applicants herewith amend claim 13 incorporating the feature "gear connection means", based on paragraph 8 of the specification, which amendment should more clearly distinguish the present claims from the disclosure of Riling. This should be clear now that the translation relationship may be varied by varying the construction design of the gear connection means. Riling does not teach a gear connection means connecting the drive means for the consumed amount display device and the verification code display device, which varying construction designs allow for the production of

supply meters with freely selectable translation relationships between the drive means of the consumed amount display device and the verification code display device.

Applicants also consider that the English translation of paragraph 0005 the German specification may be slightly unclear. In order to remove any ambiguity, Applicants correct the translation herewith.

Accordingly, the present claims are not anticipated by Riling. The present claims recite different structures from those of Riling. The present invention is directed to a metering device including means for detecting possible tampering with the device. The device includes two display means. One of these displays the amount of consumed medium which has passed through the supply meter. The other display means displays a verification code for the used amount. The verification code for the used amount is generated by **mechanical gears** of which a **translation occurs on rollers or disks and can differ from 1:10 or other sequences**. The rotating bodies of the verification code display device are **connected at any point with the drive means or gears of the supply meter device**. Figure 2 of the drawings of the instant invention illustrates the preferred means of generating the verification code. It is illustrated that the verification code display means is rigidly connected with a drive means via a gear connection means. A selectable translation relationship exists for the evaluation of the verification code.

Riling, like the present invention, is directed to a method for detecting possible tampering of a metering device. However,

Riling achieves this task in a manner different from the present invention **and using structures different from the present invention.**

Riling teaches a display means for displaying the amount consumed or the amount passing through the supply device. A gear is associated with each rotary dial having a number of indicia or numbers. Riling also **affixes a decal or label code** on either the front or the back of one or more gears associated with each rotary dial corresponding to the indicia on each dial in which the code on the decal or label **may be viewed through an opening or cutout by the use of a mirror.** The openings are arranged to **expose a portion of the code** (numeric, alphanumeric, symbol or color) which is adjacent to the zero indicia of the dials. An opening may be provided for showing the same code associated with the dial. The coincidence between the code symbol being arranged with the zero dial indicia and the dial indicia is noted in an opening denoting a key code or a sync code. If the indicia are not tampered with, the sync code will be in alignment with the code of the code markings or decal of its associated gear.

Riling provides another alternative for detecting tampering by providing users or a service representative with a card or **a decoding transparent card** onto which is imprinted codes identical to those affixed on the gear. The card is placed over the dial for checking coincidence with the code found in the opening. Then the position is marked with a line. Tampering is decided by determining an approximate difference between the

expected position of the dial at the marked line and the actually observed position.

The code in Riling is only associated with the indicator of each dial as found in the back or rear of each gear associated with respective dials. Thus, there exists no verification in the system of Riling.

Thus features of present claims 13-24 are neither present nor obvious in Riling.

It is clear from Riling that the coding means or decals are always fixed to at least one gear 38 of the consumed-amount display-device (see e.g. col. 3 1. 38-45, col. 3 1. 49-52, col. 3 1. 57-60, col. 3 1. 65 to col. 4 1. 3.). The coding means or decals may be attached to either the front or rear surface of one or more of the gears 38 (col. 4 1. 4-6). Riling describes translation relationships between single gears of the consumed-amount display-device in the order of 1:10. There is no mention of any translation relationship between the drive means and the verification code display device. Taking into account the fixed attachment of the coding means to the gear-wheels of the consumed-amount display-device a fixed translation relationship between the drive means and the verification code display device of exactly 1:1 can be derived. A freely selectable translation relationship, i.e. a translation relationship that may diverge from 1:1, is not possible with the supply meter according to Riling.

Accordingly, the verification code features as claimed, including the freely selectable translation relationship between

U.S. Application No.: 10/088,626
AMENDMENT B

Attorney Docket: 3960.010

the drive means and the verification code display device, are neither present in nor obvious over Riling.

Withdrawal of the rejection is respectfully requested.

Paragraphs 3-4 (Obviousness)

Claims 23 and 24 are rejected under 35 USC 103(a) as being unpatentable over Riling in view of (Churcher) US Patent No. 1,607,512.

Applicants respectfully traverse.

Riling does not give any suggestion as to provide a supply meter with a freely selectable translation relationship between the drive means and the verification code display device. Riling does not mention any freely selectable translation relationship. Even the translation relationship between gears of the consumed-amount display-device is not described as being freely selectable. Only the translation relationship of 1:10 is mentioned. Therefore, from Riley it would seem fully sufficient to a skilled person to use a fixed translation relationship to detect tampering with the device.

The present invention represents an improvement over Riley in that it is advantageous to provide a supply meter with a freely selectable translation relationship between the drive means and the verification code display device. It allows e.g. for allocating to a numeral a verification code dependent on the total meter reading.

Further, the large number of possible different combinations of translation relationships, coding types and

settings of the verification code display device makes tampering of the device difficult.

Churcher seems of no relevance. An electronic metering device for the fill level of a liquid container, e.g. a gasoline tank of an automobile, is described. Coding means or the like are not mentioned. There does not appear to be disclosure of a cover that is operable by means of a mechanical push button, as stated by the Examiner. Only a push button to activate the display of the fill level, if desired, is described (see e.g. p. 1 1. 95-97, p. 3 1. 127 to p. 4 1. 2).

Paragraphs 5-8 (Examiner response to arguments)

The Examiner responds to Applicants arguments of April 29, 2003.

In response, Applicants have amended claim 13 and present above an explanation of the invention and arguments tied to the amended claim.

The Examiner's main observation appears to be that Rilling display is connected to metering means via at least one gear.

However, Riling does not describe a **freely selectable** translation relationship between the drive means and the verification code display device. This relationship is **fixed** at 1:1 in Riling.

In the present invention the verification code for the used amount is generated by **mechanical gears** of which a **translation occurs on rollers or disks and can differ from 1:10 or other sequences**.

U.S. Application No.: 10/088,626
AMENDMENT B

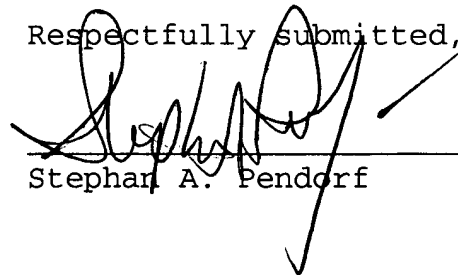
Attorney Docket: 3960.010



Accordingly, withdrawal of the rejection is respectfully requested.

Favorable consideration and early issuance of the Notice of Allowance are respectfully requested.

Respectfully submitted,


Stephan A. Pendorf

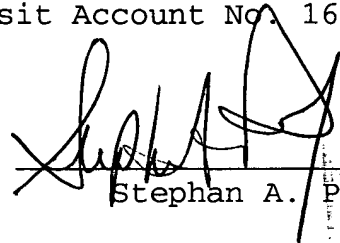
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Dated: September 12, 2003

CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE

I hereby certify that the foregoing AMENDMENT B for U.S. Application No. 10/088,626 filed March 18, 2002, was deposited in first class U.S. mail, postage prepaid, addressed: ATTN: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 12, 2003.

The Commissioner is hereby authorized to charge any additional fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.


Stephan A. Pendorf

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